

What is claimed is:

1. A multilayered film comprising:

a) a fluoropolymer layer having first and second surfaces;

5 b) an adhesive tie layer, having first and second surfaces, on the fluoropolymer layer with the first surface of the adhesive tie layer on the first surface of the fluoropolymer layer; which adhesive tie layer comprises an adhesive combination of at least one tackifier, at least one ethylene/alpha-olefin copolymer and at least one styrenic block copolymer; and

10 c) a thermoplastic polymer layer, having first and second surfaces, on the adhesive tie layer with the first surface of the thermoplastic polymer layer on the second surface of the adhesive tie layer.

2. The multilayered film of claim 1 further comprising at least one polymer layer on either the second surface of the fluoropolymer layer, the second surface of the thermoplastic polymer layer, or both.

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3. The multilayered film of claim 2 wherein said at least one polymer layer is on the second surface of the fluoropolymer layer.

20 4. The multilayered film of claim 2 wherein said at least one polymer layer is on the second surface of the thermoplastic polymer layer.

5. The multilayered film of claim 2 wherein said at least one polymer layer is on both the second surface of the fluoropolymer layer and the second surface of the thermoplastic polymer layer.

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6. The multilayered film of claim 2 wherein said at least one polymer layer is attached to either the second surface of the fluoropolymer layer, the second

surface of the thermoplastic polymer layer, or both via another layer of said adhesive combination.

5 7. The multilayered film of claim 2 further comprising a plurality of polymer layers attached to either the second surface of the fluoropolymer layer, the second surface of the thermoplastic polymer layer, or both via another layer of said adhesive combination.

10 8. The multilayered film of claim 1 wherein said fluoropolymer layer comprises a material selected from the group consisting of ethylene-chlorotrifluoroethylene copolymer, ethylene-tetrafluoroethylene copolymer, fluorinated ethylene-propylene copolymer, perfluoroalkoxyethylene, polychlorotrifluoroethylene, polytetrafluoroethylene, polyvinyl fluoride, polyvinylidene fluoride, and copolymers and blends thereof.

15 9. The multilayered film of claim 1 wherein said fluoropolymer layer comprises a chlorotrifluoroethylene homopolymer.

20 10. The multilayered film of claim 1 wherein said fluoropolymer layer comprises a poly(chlorotrifluoroethylene) containing copolymer.

25 11. The multilayered film of claim 1 wherein said thermoplastic polymer layer comprises a material selected from the group consisting of linear or branched polyolefin homopolymers, linear or branched polyolefin copolymers, cyclic olefin homopolymers, copolymers of cyclic olefins and linear or branched polyolefin homopolymers, copolymers of cyclic olefins and linear or branched polyolefin copolymers, ethylene vinyl acetate copolymers, polyesters such as polyethylene terephthalate, polyamides, polyvinyl chloride, polyvinylidene chloride,

polystyrene, styrenic copolymers, polyisoprene, polyurethanes, ethylene ethyl acrylate, ethylene acrylic acid polymers, fluoropolymers and combinations thereof.

5 12. The multilayered film of claim 1 wherein said thermoplastic polymer layer comprises a cyclic olefin copolymer.

13. The multilayered film of claim 1 wherein said at least one tackifier comprises a material selected from the group consisting of terpene-based polymers,
10 coumarone-based polymers, phenol-based polymers, rosin-based polymers, rosin esters and hydrogenated rosin esters, petroleum and hydrogenated petroleum-based polymers, styrene-based polymers and mixtures thereof.

14. The multilayered film of claim 1 wherein said at least one tackifier is selected
15 from the group consisting of a terpene-based polymers, petroleum and hydrogenated petroleum-based polymers.

15. The multilayered film of claim 1 wherein said ethylene/alpha-olefin copolymer comprises a copolymer comprising an ethylene and at least one alpha-
20 olefin having from three to twenty carbon atoms (C₃-C₂₀).

16. The multilayered film of claim 1 wherein said styrenic block copolymer is selected from the group consisting of a styrene/ethylene-propylene/styrene block copolymer, a styrene/ethylene ethylene-propylene random/styrene block
25 copolymer, a styrene/butadiene/styrene block copolymer, a styrene/ethylene butylene random/styrene block copolymer, a styrene/isobutylene/styrene block copolymer, a styrene/isoprene/styrene block copolymer, a styrene/hydrogenated

butylene/styrene block copolymer and a maleic anhydride grafted
styrene/ethylene butylene/styrene copolymer.

5 17. The multilayered film of claim 1 wherein said styrenic block copolymer
comprises a styrene/isoprene/styrene copolymer.

18. The multilayered film of claim wherein said styrenic block copolymer
comprises a styrene/ethylene butylene random/styrene block copolymer.

10 19. The multilayered film of claim 1 wherein said tackifier comprises from
greater than about 1% by weight to about 70% by weight of said adhesive
combination.

15 20. The multilayered film of claim 1 wherein said tackifier comprises from about
5% by weight to about 30% by weight of said adhesive combination.

21. The multilayered film of claim 1 wherein said tackifier comprises from about
15% by weight to about 25% by weight of said adhesive combination.

20 22. The multilayered film of claim 1 wherein said at least one ethylene/alpha-
olefin copolymer comprises from greater than about 40% by weight to about
98.9% by weight of said adhesive combination.

25 23. The multilayered film of claim 1 wherein said at least one ethylene/alpha-
olefin copolymer comprises from about 70% by weight to about 95% by weight
of said adhesive combination.

24. The multilayered film of claim 1 wherein said at least one ethylene/alpha-olefin copolymer comprises from about 75% by weight to about 85% by weight of said adhesive combination.

5 25. The multilayered film of claim 1 wherein said at least one styrenic block copolymer comprises from greater than about 0.1% by weight to about 80% by weight of said adhesive combination.

10 26. The multilayered film of claim 1 wherein said at least one styrenic block copolymer comprises from about 0.5% by weight to about 15% by weight of said adhesive combination.

15 27. The multilayered film of claim 1 wherein said at least one styrenic block copolymer comprises from about 1 % by weight to about 6% by weight of said adhesive combination.

28. The multilayered film of claim 1 wherein each of said layers are coextruded.

20 29. The multilayered film of claim 2 wherein said at least one polymer layer comprises a material selected from the group consisting a fluoropolymer, a polyamide, a polyolefin, an ethylene vinyl acetate copolymer, polyethylene terephthalate, polyvinyl chloride, polyvinylidene chloride, polystyrene, styrenic copolymers, polyisoprene, polyurethanes, an ethylene acrylic acid polymer, a cyclic olefin homopolymer or copolymer and combinations thereof.

25 30. The multilayered film of claim 1 wherein the film is uniaxially oriented, biaxially oriented or a blown film.

31. The multilayered film of claim 1 wherein the film is uniaxially oriented from about 1.3 to about 10 times in either its longitudinal or transverse directions.
- 5 32. The multilayered film of claim 1 wherein the film is biaxially oriented from about 1.5 to about 5 times each of its longitudinal and transverse directions.
33. The multilayered film of claim 1 wherein said film is formed into an article suitable for packaging moisture sensitive products.
- 10 34. The multilayered film of claim 1 wherein said film is thermoformed into an article suitable for packaging moisture sensitive products.
35. A tube formed from the multilayered film of claim 1.
- 15 36. An adhesive composition comprising an adhesive combination of at least one tackifier, at least one ethylene/alpha-olefin copolymer and at least one styrenic copolymer.
- 20 37. The composition of claim 36 wherein said at least one tackifier comprises a material selected from the group consisting of terpene-based polymers, coumarone-based polymers, phenol-based polymers, rosin-based polymers, rosin esters and hydrogenated rosin esters, petroleum and hydrogenated petroleum-based polymers, styrene-based polymers and mixtures thereof.
- 25 38. The composition of claim 36 wherein said at least one tackifier is selected from the group consisting of terpene-based polymers, petroleum and hydrogenated petroleum-based polymers.

39. The composition of claim 36 wherein said ethylene/alpha-olefin copolymer comprises a copolymer comprising an ethylene and at least one alpha-olefin having from three to twenty carbon atoms (C₃-C₂₀).

5 40. The composition of claim 36 wherein said tackifier comprises from greater than about 1% by weight to about 70% by weight of said adhesive combination.

41. The composition of claim 36 wherein said tackifier comprises from about 5% by weight to about 30% by weight of said adhesive combination.

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42. The composition of claim 36 wherein said tackifier comprises from about 15% by weight to about 25% by weight of said adhesive combination.

15 43. The composition of claim 36 wherein said ethylene/alpha-olefin copolymer comprises from greater than about 40% by weight to about 98.9% by weight of said adhesive combination.

20 44. The composition of claim 36 wherein said ethylene/alpha-olefin copolymer comprises from about 70% by weight to about 95% by weight of said adhesive combination.

25 45. The composition of claim 36 wherein said ethylene/alpha-olefin copolymer comprises from about 75% by weight to about 85% by weight of said adhesive combination.

46. The composition of claim 36 wherein said styrenic block copolymer comprises from greater than about 0.1% by weight to about 80% by weight of said adhesive combination.

47. The composition of claim 36 wherein said styrenic block copolymer comprises from about 0.5% by weight to about 15% by weight of said adhesive combination.
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48. The composition of claim 36 wherein said styrenic block copolymer comprises from about 1% by weight to about 6% by weight of said adhesive combination.
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49. The composition of claim 36 wherein said styrenic block copolymer is selected from the group consisting of a styrene/ethylene-propylene/styrene block copolymer, a styrene/ethylene ethylene-propylene random/styrene block copolymer, a styrene/butadiene/styrene block copolymer, a styrene/ethylene butylene random/styrene block copolymer, a styrene/isobutylene/styrene block copolymer, a styrene/isoprene/styrene block copolymer, a styrene/hydrogenated butylene/styrene block copolymer and a maleic anhydride grafted styrene/ethylene butylene/styrene copolymer.
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50. The composition of claim 36 wherein said styrenic block copolymer comprises a styrene/isoprene/styrene copolymer.
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51. The composition of claim 36 wherein said styrenic block copolymer comprises a styrene/ethylene butylene random/styrene block copolymer.
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52. A multilayered film comprising:
- a) a poly(chlorotrifluoroethylene) layer having first and second surfaces;
 - b) an adhesive tie layer, having first and second surfaces, on the poly(chlorotrifluoroethylene) layer with the first surface of the adhesive tie layer

on the first surface of the poly(chlorotrifluoroethylene) layer; which adhesive tie layer comprises an adhesive combination of at least one tackifier, at least one ethylene/alpha-olefin copolymer and at least one styrenic block copolymer;
c) a cyclic olefin copolymer layer, having first and second surfaces, on the adhesive tie layer with the first surface of the cyclic olefin copolymer layer on the second surface of the adhesive tie layer; and
d) at least one polymer layer on either the second surface of the poly(chlorotrifluoroethylene) layer, the second surface of the cyclic olefin copolymer layer, or both.

53. The multilayered film of claim 52 wherein said film is formed into an article suitable for packaging moisture sensitive products.

54. The multilayered film of claim of claim 52 wherein said film is thermoformed into an article suitable for packaging moisture sensitive products.

55. A tube formed from the multilayered film of claim 52.

56. A process for forming a multilayered film comprising:

- a) forming a fluoropolymer layer having first and second surfaces;
- b) attaching an adhesive tie layer, having first and second surfaces, to the polyolefin layer with the first surface of the adhesive tie layer on the first surface of the polyolefin layer; which adhesive tie layer comprises an adhesive combination of at least one tackifier, at least one ethylene/alpha-olefin copolymer and at least one styrenic block copolymer; and
- c) attaching a thermoplastic polymer layer, having first and second surfaces, to the adhesive tie layer with the first surface of the thermoplastic polymer layer on the second surface of the adhesive tie layer.

57. The process of claim 56 wherein said multilayer film is formed into an article by injection molding, co-injection blow molding, co-injection stretch-blow molding or coextrusion blow molding techniques.

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58. The process of claim 56 wherein said fluoropolymer layer, said adhesive tie layer and said thermoplastic polymer layer are coextruded.

59. The process of claim 56 wherein said multilayered film is formed into an article suitable for packaging moisture sensitive products.

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60. The process of claim 56 wherein said film is thermoformed into an article suitable for packaging moisture sensitive products.

61. The process of claim 56 wherein said multilayered film is formed into a tube.

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